Supplementary data:

Thermally promoted addition of undecylenic acid on thermally hydrocarbonized porous silicon optical reflectors

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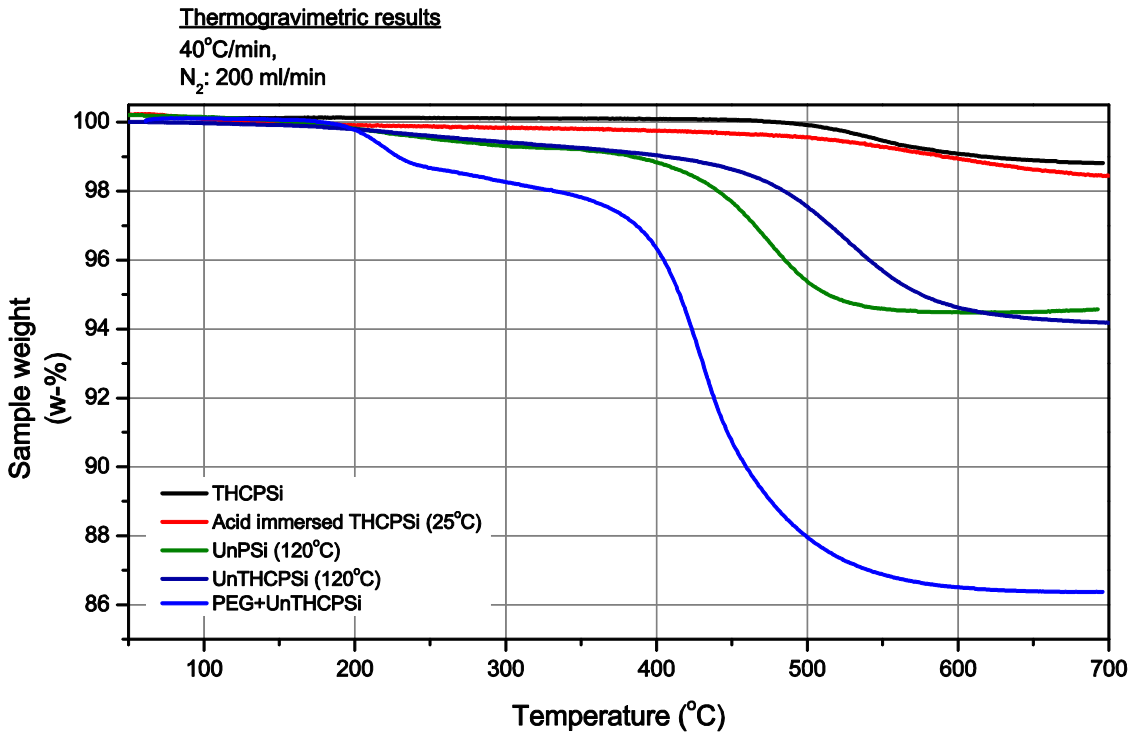

Figure S1. Thermogravimetric (TG) measurements of thermally hydrocarbonized PSi (THCPSi), undecylenic acid treated hydrogen terminated as-anodized PSi (UnPSi) and similarly treated hydrocarbonized PSi (UnTHCPSi). In addition, TG-curves for UnTHCPSi functionalized with amine-terminated PEG 5000, and THCPSi that has been immersed in undecylenic acid at 25°C for 16 hours and washed copiously afterwards. Reduction in weight is related to thermal decomposition of surface moieties desorbing from the surface, and gives qualitative information about the processes involved.

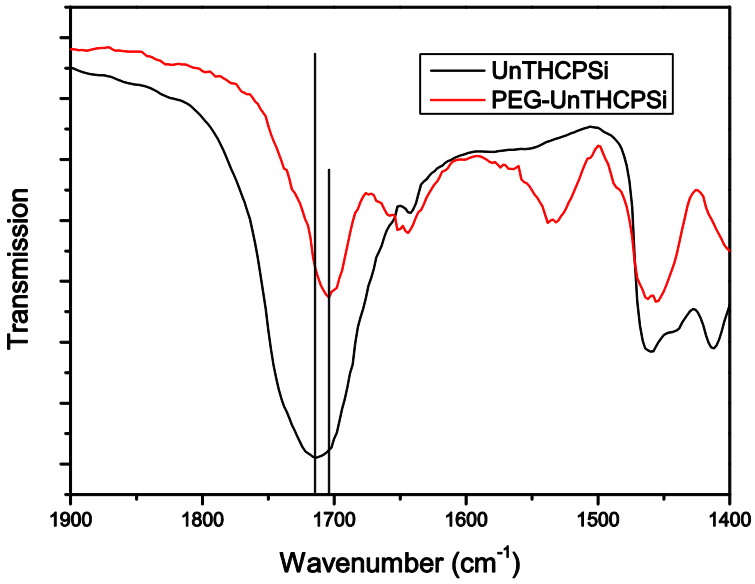

Figure S2. FTIR spectra for UnTHCPSi and UnTHCPSi functionalized with NH_2-PEG 5000. The spectra reveal a shift in the peak related to the carboxylic end of the undecylenic acid molecyle (indicated by the vertical lines). Also the amide bands at 1650 cm^{-1} and 1540 cm^{-1} are clearly visible in the functionalized sample.